STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission On Its Own Motion	)	
Consideration of the federal standard on interconnection in Section 1254 of the Energy Policy Act of 2005	)	06-0525

REPLY COMMENTS OF COMMONWEALTH EDISON COMPANY

Commonwealth Edison Company ("ComEd") submits this reply to the comments of other parties on the proposed "final" interconnection rules included as Attachment 2 to the Commission Order of March 26, 2008, in this docket.

I. Statewide Uniformity of Interconnection Procedures Is Not Necessary.

In explaining its shift to favoring a rule setting out detailed interconnection procedures (from its prior position advocating individual utility tariffs), Staff, at p. 7, indicated its belief that the facilitation of interconnection in the face of increased potential demand for such arrangements is best achieved by the adoption of uniform rules for statewide application. ComEd suggests that, in fact, mandating uniform statewide procedures will have no meaning to the interconnection customers themselves who are used to dealing with a single utility for the provision of electric service. A customer in Ameren territory will not care if ComEd's procedures are identical to Ameren's as long as Ameren's procedures are themselves reasonable.

Further, Staff says, at p.9:

> By making the process uniform state-wide, producers of generation machines get access to a wider market... If there are different rules for each utility, generator manufacturers will find it more difficult to make one type of machine for the

whole state. With uniform rules, the manufacturer knows what it will take to get that machine installed no matter where its customer is located.

While that may be true for the technical specifications that the machines must adhere to, that concern has already been taken care of by the Commission's action in adopting IEEE Standard 1547 as the technical standard for the whole state. Whether the utilities uniformly must respond to a customer's application in 7 business days has no logical bearing on the fact that manufacturers of generators now know the state-wide technical standard for small generator machines and can build to that standard for the entire Illinois market.

The Commission should give serious consideration to not adopting the proposed rule in its current form with so many procedural requirements. Again, including detailed procedures in Commission rules is neither compelled by the law nor consistent with the manner in which the Commission regulates other electric utility practices.

II. The Commission Should Not Require Utilities to "Indemnify" Interconnectors.

Staff, at p. 24, specifically addressed the indemnification issue in its initial comments. It examined what a number of other jurisdictions had done, what it terms the "best practices" of other states, and concluded that bi-lateral indemnification provisions should be included in the standard documents. Such a conclusion, however, calls into question the meaning of the term "best practice" in light of the potential impact of such practices on other electric customers in the State of Illinois.

It is a virtual certainty that each party's perspective on what constitutes a "best practice" will depend on that party's particular interest. ComEd suggests that those in the distributed generation ("DG") community would tend to view best practices as those that

made interconnection faster, cheaper and easier. Utilities, on the other hand will argue that best practices are those that allow them to preserve the safe and reliable operation of the electric distribution system without incurring additional costs that have to be passed on to other customers.

Providing some context might be helpful. Public policy favors allowing the interconnection of customer-owned generation that will operate in parallel with the electric grid to permit customers to supply a potion of their own power and to increase potential sources of energy supply generally in order to put downward pressure on wholesale supply prices. It must be remembered, however, that none of this state-jurisdictional generation is "dispatchable" – i.e., it is not generation that can be counted on to be there, either all the time or at any particular time, by utilities when they procure supply for their retail customers or when they size and maintain the distribution system to handle the interconnection customer's potential load. In other words, the customer can shut down its generator at any time for any reason, and the utility must be ready to respond. While the interconnecting customer's actions might at some point, at some high level, have some benefit to other customers, the interconnection customer is seeking interconnection for its own economic interests.

Moreover, the distribution system was not designed with the uniformity and built-in protective features that would easily accommodate the interconnection of generators at virtually any point on the grid, and the act of connecting generators to the distribution system increases the safety and reliability risks of operating that system to a degree that goes well-beyond the risks posed by regular "load" customers (those that only draw electricity off the grid). And while the interconnection customer is a "customer" of the

electric utility, the electric utility has many more load customers that it must serve, and the costs of configuring processes or the electric grid itself to facilitate interconnections that are not paid for by the interconnectors themselves will ultimately have to be passed on to other electric customers.

With that in mind, ComEd would repeat the point made in its comments – that there is no good public policy reason for favoring interconnection customers over the utility's other customers by requiring the utility to provide them indemnification. While it is appropriate to require interconnectors to indemnify utilities in the indicated instances, the liability of utilities to interconnectors should be left to existing law consistent with the utilities' liability to their other electric service customers.

III. Utilities Should Be Able to Require an External Disconnect Switch for Level 1 Interconnections.

Chicago of Chicago ("Chicago") at p.2, ELPC at p. 4, and IREC at p. 2 ask the Commission to modify the proposed rules to eliminate the ability of utilities to require an external disconnect switch for Level 1 applications. They claim that the additional cost will discourage interconnections. When such a safety device costs only a few hundred dollars and the generation system itself costs tens of thousands of dollars, such an argument is misplaced.

While Chicago argues that customers should be able to choose the risk of having to be disconnected in emergency situations by having the utility remove the meter, the fact is that for some customers (those with > 200 amp service) pulling the meter will not isolate the electric distribution grid from the customer's generator. Moreover, some customers' meters remain in locations that are not readily accessible. Thus, relying on

the ability to pull the customer's meter is not a sure-fire way for utilities to quickly and easily isolate the customer's generator to preserve the safety of workers and others and to maintain service reliability.

Further, while these parties argue that the "best practice" is to make the device optional with the customer, they ignore the fact that most jurisdictions allow utilities to require it. See Ameren Comments Ex.2.

Finally, on this issue, ComEd also supports the clarifying language proposed by Ameren for 466.60(h) and (i).

IV. The Provisions Regarding Utility Monitoring Should Be Modified to Allow Monitoring in Other Cases.

Section 466.60(k) of the proposed rules provides:

> EDC monitoring and control of distributed generation facilities are permitted only when the nameplate rating is greater than 2 MW. Monitoring and control requirements shall be consistent with the EDC's published requirements and shall be clearly identified in the interconnection agreement between the interconnection customer and the EDC. Transfer trip shall not be considered EDC monitoring and control when required and installed to protect the electric distribution system or an affected system against adverse system impacts.

Chicago, at p. 4, argues that the proposed rule should be modified to prohibit a utility from requiring monitoring and control only if the customer's generator exports power to the grid and then only if that exceeds 15% of the line section load rating. Chicago's suggestion on size limitation makes sense, but only if it is applicable to all generators regardless of whether the export power. While today ComEd does not require monitoring of smaller generators, if distributed generation becomes more common with multiple machines on the same line section, it may be necessary to extend monitoring to generators even smaller than 2MW. The utility must design and maintain its distribution

feeders to handle all of the load of the customers served from those lines in case their generation supply is taken off line for some reason. Without this monitoring, it is difficult for the utility to know how great the customer's load actually is and this becomes more important the greater the percentage of the load on a line that is also served by distributed generation. In this regard, it should be noted that IEEE Standard 1547, at section 4.1.6, states that the customer must provide a means of monitoring if the generator is larger than 250 kW – significantly smaller that the 2MW size limit in the proposed rule. Moreover, it must be noted that ComEd has absolutely no interest in incurring the expense of gathering and storing and analyzing this data unless it believes it is necessary for the reliable operation of the distribution system. Thus, the language above should be modified as follows:

> EDC monitoring and control of distributed generation facilities are permitted only when the nameplate rating is greater than ~~2 MW~~ 15% of the line section load rating.

Further, however, Chicago asks for elimination of language from the rule that says that requiring "transfer trip" does not constitute control. Transfer trip consists of a transmitter and substation equipment to monitor the status of the line circuit breaker with a generator, a receiver at the customer's site, and a communication channel, typically a leased phone line. A transfer trip signal is generated when the utility line circuit breaker is tripped. That signal is received at the customer site and in turn trips the customer generator breaker or other designated breaker. The utility needs to monitor and control the status of transfer trip receiver and the communication channel such that it will operate correctly. This is part of the protection arrangement and is not used for day-to-day control the generator. Chicago suggests that the current language implies that the utility

can impose this protective arrangement arbitrarily. That is not the case. The language in the context of subsection (k) merely clarifies that the use of transfer trip for network protection is not otherwise subject to the 2MW limitation that is applicable to monitoring and control devices. It does not allow the utility to arbitrarily impose additional costs on the interconnector for no reason. As always, if the customer believes that the utility is imposing a transfer trip requirement inappropriately in any context, it can avail itself of the dispute resolution procedures provided for in the agreements.

V. The Level 1 Size Limit Should Remain at 10kW.

Chicago, at p. 5, argues that the maximum generator size for Level 1 should be changed from a specified size of 10kW to an unspecified size that would vary in relation to the rating of the line section. While Chicago acknowledges administrative ease of the current 10kW limit, it suggests that the limit involves "unnecessary burdens". This is simply nonsense. It is important to remember that all of the applications at issue here will get expedited treatment – whether Level 1's or whether they are slightly larger and are classified as Level 2. To further the notion that the very smallest, simplest, and safest generators are given the most expedited treatment of Level 1, it is appropriate that the maximum size be specific and reasonably small to cover only those machines that, without further analysis will pose as little risk as possible. The benefit to customers is that they will know ahead of time which machines would qualify for this category. Chicago's proposal will actually reduce the certainty for the smallest generator applications. It should be noted that the current 10kW limit is high enough to include almost all residential photovoltaic ("PV") systems, which generally range is size from 1kW to 2kW.

VI. The Proposed Limitations on Connections to "Networks" Should Remain.

The three DG parties (Chicago, ELPC, IREC) seek liberalization of the proposed restrictions on connections to networks. In this context, a "network" is a portion of the distribution grid fed from more than one substation or transformer – as opposed to a radial circuit or line, which, as the name implies, is like a spoke extending from a single substation or transformer. Chicago, at p. 6, wants expedited procedures for connecting generation (presumably larger than the current 50kW Level 3 limitation) to area networks. ELPC, at p. 11, wants the Level 3 provisions modified to allow connection of any size generation if there are protections against exporting power. IREC, at 8, suggests that the aggregate generation limit on area networks be raised to 200kW.

The challenges associated with providing the proper protection for networks is described in a ComEd "white paper" on the subject that was submitted with its comments in the context of an earlier workshop on interconnection. That white paper is included as Attachment A.

Level 3 is an expedited process. Connecting more than a minimal amount of generation to an area network would require extensive studies to determine whether additional protective measures are required. The need for such studies logically precludes an expedited review.

Also, it must be remembered that IEEE Standard 1547 specifically avoided the subject of connections to networks and thus does not apply. It makes no sense to argue that "best practice" would provide expedited treatment for larger generators on networks when there isn't even a technical standard on the subject. ELPC states that if the IEEE approves a standard for connections to area networks, then that standard would apply.

However, that would require utilities to go back to existing customers and require them to change their protection to conform to the standard. In the mean time, it would be imprudent to jeopardize the reliability of an area network containing several thousand customers to allow one customer to generate on the network without clear standards of how this would be done safely and reliably.

ELPC expresses a concern for big box stores and malls. However, these types of customers would not be served by area networks and would not be affected by the limitation on area networks. Some shopping malls do have spot networks but most are fed from radial lines.

ELPC also argues that the use of reverse power relays should obviate the need for a restriction. However, the network protectors incorporate a reverse power relay that is set very sensitive. If the customer were to try to coordinate with the existing network protection, the customer generator will be tripping off-line on a regular basis.

In summary, the "best practice" would be to wait for a standard to be developed before increasing the limit on connections to area networks.

VII. The Load Screens Should Be Left in Tact.

The proposed rule contains a technical screen that limits the generation to:

> total distributed generation connected to the distribution circuit, including the proposed distributed generation facility, may not exceed 50% of the minimum normal load that is supplied to the distribution circuit when the EDC's distribution circuit is configured in a normal manner. If minimum load values for the EDC's distribution circuit are not available, then the total generation on the EDC's distribution circuit, including the proposed distribution generation facility, may not exceed 15% of the maximum load supplied to the distribution circuit. 466.90(a)(1), 466.100(a)(1), 466.110(a)(5)(A).

These limitations are designed to prevent "islanding" – a situation in which a portion of the utility's distribution line is energized solely by one or more customer generators through the associated point of interconnection while that portion of the utility's distribution line is electrically separated from the rest of the utility's distribution system. This creates a potential hazard to personnel working on the utility's distribution line and could result in damage to other customer's electrical equipment as well. What is relevant to potential islanding is the capacity of the generator as compared to the actual load on the line at the time of the triggering event that results in such islanding.

The three DG parties seek various changes to the load restrictions that all involve elimination of the minimum normal load restriction. Chicago, at p.6, claims that the percent of maximum load is better because the minimum normal load is not easily determined. However, the rule accommodates this concern by providing for the maximum load value in the alternative. ELPC, at p.14, concurs citing FERC. However, connection to distribution circuits is more complex than connection to transmission lines because conditions are so much more variable. IREC, at p. 3, concurs for Levels 1 and 2, expressing a concern that PV systems, which generate only during the day, would be limited by a standard that results from night usage on the circuit.

First, ComEd must state categorically that 50% of the minimum line load is a better measure of whether or not a customer can "island" a feeder and hence require additional studies. If a utility has access to minimum line load information, it should be able to use it. Moreover, IEEE Standard 1547 (page 10, footnote 12-1) states a that good value for a load related restriction is 1/3 of the "minimum" line load for anti-islanding protection. Thus, the proposed rule's limit of 50% is actually more lenient.

In response to Chicago's concern about how minimum line load can be determined, ComEd would note that its load data is stored 24 hours a day, facilitating retrieval of both minimum or maximum load information. ComEd suggests that the 15% of maximum line load was chosen as an available alternative because many utilities cannot determine a minimum line load, not because it is a superior indicator of islanding risk.

With respect to IREC's concern about PV systems being held to a minimum line load that occurs at night, it would be logical for utilities to figure the minimum line load using daytime figures, but the rule needn't specify that for this very reason. In any event, for the foreseeable future it is not likely that PV systems will reach even the 50% minimum night-time load level.

In addition, for Level 3, ELPC, at p. 8, asks that the load restriction be eliminated altogether or at least raised from 15% to 25% of the maximum line load, citing the use of reverse power relay to restrict exporting power. IREC concurs, even suggesting a 50% limit. ComEd is concerned that there is a misperception that if the customer installs a reverse power relay, then its generator will have no impact on the electric distribution system. This is not the case. Even if the generator does not export, it can contribute to the fault current on the line and, therefore, may require additional studies to verify that it can be safely interconnected. Moreover, unlike Level 2, Level 3 includes non-certified equipment and generators larger than 2MW which necessitates closer scrutiny than Level 2 applications. Therefore, increasing load limitation would require additional studies making such connections inappropriate for the expedited treatment of Level 3.

In response to IREC's concern that a 50% of minimum load restriction would constitute a practical limit of 2MW on the size of Level 3 generators, ComEd notes that a 34kV distribution circuit generally may have 30 or more MVA of load and the minimum line load would typically be about 10 MVA. So, 50% of the minimum line load is dependent on the distribution circuit voltage and is not restricted to 2 MW for Level 3 applicants.

VIII. These Expedited Procedures Should Be Limited to Small Generators <10MW.

Both ELPC, at p.6, and IREC, at p.6, argue that Level 4 procedures should apply to all state jurisdictional generators, without size limit. ELPC implies that failing to do so would amount to the Commission "abdicating its responsibility to ensure that all state-jurisdictional projects are treated justly and reasonably."

As Staff has noted, IEEE Standard 1547 does not apply to generators larger than 10MW and there is justification to limit these expedited procedures (even Level 4 includes timeline requirements for studies) to generators for whom there exist technical standards, which would arguable justify more time for more detailed studies. Moreover, there should be no legitimate "best practices" claim to remove the size limitation because several states set limits on their expedited procedures at or below the 10MW figure. See Ameren Comments Ex. 2.

ELPC's conclusion that potential generators not covered by these procedures will be left to arbitrary and capricious practices of utilities is without merit. Even in the absence of a detailed Commission rule on interconnection, utilities have had the obligation to behave justly and reasonably with respect to interconnection applicants and

the Commission has always had jurisdiction to adjudicate any complaint by a potential interconnector of unjust treatment by a utility.

IX. The Rules Should Permit Fee Change With Commission Consent.

ELPC, at p.10, and IREC, at p.7, argue that specific reference to application fee amounts be included in the rule proper, lest utilities believe that the amounts included in the standard application forms are merely suggested. ComEd believes that the notion that an appendix is not part of a Commission rule is misplaced, so the change requested by ELPC and IREC is unnecessary. However, the rules should allow for a change in application fee amounts if the Commission approves. One can imagine years hence that it may be appropriate for utilities to charge more for interconnection applications because of rising costs. In that case, it should not require a rule change to do so, but only Commission review – as is the case with any regulated rate.

X. The Rules' Timelines Should Not Be Synced With the FERC Model.

ELPC, at p.14, argues that timelines in these rules should be no longer than those in FERC's model procedures. That would not be appropriate. That model document was offered as a template for consideration by state jurisdictions. To date, it has not been widely embraced by states adopting procedural standards. Moreover, it would be arbitrary to adopt only a portion of the contents of that model without considering other elements of the model that may have factored into the consideration of the timelines in question.

XI. Utilities Should Have No Obligation to Provide Prior Studies to Applicants.

ELPC, at p. 15, argues for a change to 466.140(c) to "clarify" that withholding prior studies from interconnection applicants is permissible only where confidentiality or security concerns justify. ELPC assumes that the rather strong language to the contrary in the last sentence of that subsection was an oversight. ComEd suggests that that provision was intentionally worded to state that the utility has no obligation with respect to the provision of prior studies to applicants because of the points made by the utilities in the workshops. To restate those points, the studies in question look at particular proposed equipment in light of conditions of the particular point in the distribution grid that the interconnection is proposed at that particular point in time. Each proposed point must be studied separately because there is no certainty that any one point is just like any other with respect to relevant characteristics. And even the same point that had been studied previously would need to be restudied to determine whether any changes had taken place that might render a different conclusion from a prior study. As a result, prior studies will give the interconnector no useful information and require utilities to store, retrieve and supply them will complicate these expedited procedures for no purpose.

XII. Utilities Should Be Permitted to Collect 100% of the Estimated Cost in Advance Without a Requirement to Pay Interest.

The proposed rule would allow the utility to collect 100% of estimated construction and study costs in advance of performing the study and beginning construction. ELPC, at p. 16, argues that the construction deposit be reduced to 50% with the requirement that the utilities pay interest and accept a letter of credit in lieu of

the payment. IREC, at p. 8, asks for a reduction of the up front payment to 50% in the case of studies.

ComEd would point out that, despite the use of the word "deposit" in the proposed rule, the payments in question are really "advance payments" or "pre-payments" rather than the security payments addressed in the Commission's rules on customer deposits.

In the latter case, the payments are designed to protect against non-payment by applicants with poor credit history or customers with a history of late payment. The payment of the deposit does not entitle the customer to "count" it toward the balance owed for electric service. The deposits are only credited to a customer's account if the account is "finaled" and there is an outstanding balance. If the customer pays for service promptly, the deposit is refunded with interest. In some cases the customer can provide a letter of credit as surety.

In the case at hand, however, the payments are in reality advance payments for performing the study and the construction work required to interconnect the customer's generation. It is not anticipated that any amounts will ever be refunded to the customer unless the actual costs incurred by the utility are less than the estimate used to determine the advance payment. The funds are collected in advance of the performance of the work so that the utility doesn't have to "float" other funds to pay for the work until the customer is billed and pays. To use other funds would ultimately result in cost to other customers.

Moreover, in this case, it is very important to note that requirement of advance payment (without the provision of interest on the advance) is consistent with the way

STATE OF ILLINOIS)
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COUNTY OF DUPAGE)

VERIFICATION

I, David F. Geraghty, being first duly sworn, state that I have read the foregoing Reply Comments of Commonwealth Edison Company and that the facts stated therein are true and correct to the best of my knowledge and belief.

David F. Geraghty

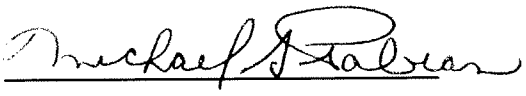
Subscribed and sworn to before
me this 9th day of May, 2008.

Notary Public

"OFFICIAL SEAL"
JOHN L. LEICK
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 8/4/2009

utilities treat their load customers when those customers desire service that involves non-standard facilities or equipment for which the customer must pay – 100% of the estimated cost is required to be paid in advance and, if the estimated pre-payment exceeds the actual cost, the difference is refunded without interest. The requests of ELPC and IREC here are for special treatment that would favor interconnection customers over the utilities' other customers – without justification.

Respectfully submitted,
COMMONWEALTH EDISON COMPANY

By: 

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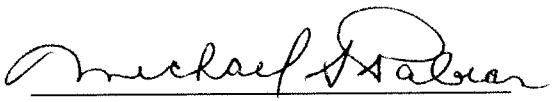
DATED: May 9, 2008

Certificate of Service

I, Michael S. Pabian, hereby certify that I have served a copy of the foregoing Reply Comments of Commonwealth Edison Company on the parties by electronic mail, this 9th day of May, 2008.



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